

# Order of Operation of Cloud Directives

In situations where you have files with the same filename but with different contents in different places--such as on Pleiades, various folders of AWS S3, and various job-time filesystems--pay attention to the execution order shown below to avoid unintentionally getting or putting, or using or deleting the wrong copy.

Please review the following articles to understand the overall operation of the HECC cloud environment:

- [Staging between Pleiades and AWS within PBS](#)
- [Transferring files between AWS S3 and \\$PBS\\_O\\_WORKDIR](#)
- [Creating a job-time filesystem](#)
- [Transferring files between AWS S3 and job-time filesystems](#)
- [Optional job-time filesystem related directives](#)

## Order of Execution

- Persistent filesystems:
  1. -stagein\_file/\_dir
  2. -get\_file
  3. -volume\_home\_{bashrc,profile,login,cschrc}
  4. pbs script
  5. (-put\_file/-stageout\_file/\_dir)
  6. -volume\_list
  7. -volume\_delete
- "Shared" type job-time filesystems:
  1. -volume\_get
  2. -stagein\_file/\_dir
  3. -get\_file
  4. -volume\_home\_{bashrc,profile,login,cschrc}
  5. if primary then -stagein\_file/\_dir and -get\_file
  6. pbs script
  7. -volume\_list
  8. -volume\_delete
  9. -put\_file
  10. -stageout\_file/\_dir
  11. -volume\_put
- Non-"shared" type job-time filesystems (node, local, ephemeral, master\_shared):
  1. -volume\_get
  2. -volume\_home\_{bashrc,profile,login,cschrc}
  3. if primary then -stagein\_file/\_dir and -get\_file
  4. pbs script
  5. -volume\_put
  6. (-put\_file/-stageout\_file/\_dir)
  7. -volume\_list
  8. -volume\_delete

The (-put\_file/-stageout\_file/\_dir) is in the order that the directives exist in the PBS script.

The -volume\_get operation happens when the compute instance boots up. For the -volume\_put operation, it depends on the filesystem used:

- "Shared" filesystems: Done on the filesystem server after the job exits.

- All other filesystems: Done on the filesystem after the PBS script and before the -volume\_list operation.

WARNING: It is recommended not to delete a folder in which you intend to 'put' files within the same PBS job.

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